Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period: \_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_

**Average Atomic Mass Practice Problems**

*Directions*

1. *Calculate the average atomic mass for each of the elements below.*
2. *SHOW YOUR WORK and BOX your final answer!*
3. *Round to 2 decimal points.*
4. Four isotopes of lead include lead-204, lead-206, lead-207, and lead-208. The average atomic mass of a lead atom is 207.2 amu. Which isotope of lead is most abundant (common) and why?
5. Rubidium is a soft, silvery-white metal that has two common isotopes, 85Rb and 87Rb. If the abundance of 85Rb is 72.2% and the abundance of 87Rb is 27.8%, what is the average atomic mass of rubidium?
6. Uranium is used in nuclear reactors and is a rare element on earth. Uranium has three common isotopes. If the abundance of 234U is 0.01%, the abundance of 235U is 0.71%, and the abundance of 238U is 99.28%, what is the average atomic mass of uranium?
7. Copper used in electric wires comes in two isotopes: 63Cu and 65Cu. 63Cu has an atomic mass of 62.9298 amu and an abundance of 69.09%. The other isotope, 65Cu, has an abundance of 30.91%. The average atomic mass between these two isotopes is 63.546 amu. Calculate the actual atomic mass of 65Cu.
8. Iridium has two stable isotopes: Iridium-191 and Iridium-193. Look up the average atomic mass of Iridium (Ir) in your periodic table. Then, calculate the percent abundance of each isotope.
9. Potassium has two stable isotopes: Potassium-39 and Potassium-41. Look up the Look up the average atomic mass of Potassium (K) in your periodic table. Then, calculate the percent abundance of each isotope.
10. Nitrogen is made up of two isotopes, N-14 and N-15. Given nitrogen's average atomic mass of 14.007, what is the percent abundance of each isotope?
11. Copper is made up of two isotopes, Cu-63 (62.9296 amu) and Cu-65 (64.9278 amu). Given copper's average atomic mass of 63.546, what is the percent abundance of each isotope?